

WHAT IS CLAIMED IS:

1. An agent for phase-adjusting or enhancing an amplitude of an endogenous melatonin secretion rhythm comprising whey as an active component.

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2. The agent for phase-adjusting or enhancing an amplitude of an endogenous melatonin secretion rhythm according to claim 1, wherein said whey is at least one of acid whey and cheese whey.

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3. The agent for phase-adjusting or enhancing an amplitude of an endogenous melatonin secretion rhythm according to claim 2, wherein said acid whey comprises fermented milk whey obtained by fermentation of milk with bacteria including lactic acid bacteria.

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4. The agent for phase-adjusting or enhancing amplitude of an endogenous melatonin secretion rhythm according to claim 3, wherein said lactic acid bacteria are of the genus *Lactobacillus* sp.

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5. The agent for phase-adjusting or enhancing an amplitude of an endogenous melatonin secretion rhythm according to claim 4, wherein said lactic acid bacteria of the genus *Lactobacillus* are of the species *Lactobacillus helveticus*.

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6. The agent for phase-adjusting or enhancing an amplitude

of an endogenous melatonin secretion rhythm according to  
claim 5, wherein said *Lactobacillus helveticus* is of a strain  
*Lactobacillus helveticus* CM4 (deposited at National  
Institute of Advanced Industrial Science and Technology,  
5 International Patent Organism Depositary under Accession  
Number FERM BP-6060).

7. The agent for phase-adjusting or enhancing an amplitude  
of an endogenous melatonin secretion rhythm according to  
10 claim 2, wherein said acid whey is casein whey containing  
an aqueous fraction obtained by adding acid to milk.

8. An agent for improving a circadian rhythm comprising  
whey as an active component.

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9. The agent for improving a circadian rhythm according  
to claim 8, wherein said whey is at least one of acid whey  
and cheese whey.

20 10. The agent for improving a circadian rhythm according  
to claim 9, wherein said acid whey comprises fermented milk  
whey obtained by fermentation of milk with bacteria  
including lactic acid bacteria.

25 11. The agent for improving a circadian rhythm according  
to claim 10, wherein said lactic acid bacteria are of the  
genus *Lactobacillus* sp.

12. The agent for improving a circadian rhythm according to claim 11, wherein said lactic acid bacteria of the genus *Lactobacillus* are of the species *Lactobacillus helveticus*.
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13. The agent for improving a circadian rhythm according to claim 12, wherein said *Lactobacillus helveticus* is of a strain *Lactobacillus helveticus* CM4 (deposited at National Institute of Advanced Industrial Science and Technology, International Patent Organism Depositary under
- 10 Accession Number FERM BP-6060).
14. The agent for improving a circadian rhythm according to claim 9, wherein said acid whey is casein whey containing
- 15 an aqueous fraction obtained by adding acid to milk.
15. Functional food for improving an endogenous melatonin secretion rhythm comprising an agent for phase-adjusting or enhancing an amplitude of an endogenous melatonin
- 20 secretion rhythm according to any one of claims 1 to 7.
16. The functional food according to claim 15, wherein said improvement of an endogenous melatonin secretion rhythm comprises prevention or amelioration of sleep
- 25 disorder or prolonged sleep latency.
17. Functional food for improving a circadian rhythm

comprising an agent for improving a circadian rhythm  
according to any one of claims 8 to 14.

18. The functional food according to claim 17, wherein  
5 said improvement of a circadian rhythm comprises prevention  
or amelioration of sleep disorder or prolonged sleep  
latency.